

properties including improved tear resistance and improved resistance to fatigue; wherein said improvements in properties of said crystal gel being greater than an amorphous gel made from poly(styrene-ethylene-butylene-styrene) or poly(styrene-ethylene-propylene-styrene) having substantially non-crystalline components at corresponding said gel rigidity [formed from copolymers having a substantially non-crystalline components]; [(iii)] in combination with or without a selected amount of (iii) one or more of a selected polymer or copolymer.

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2. (Once amended) A crystal gel according to claim 1, wherein said gel [crystalline components] having a selected crystallinity [of at least about 10% by weight of said copolymer] as exhibited in differential scanning [calorimeter] calorimetry (D[C]SC) a melting endotherm values of about 20oC, 21oC, 22oC, 23oC, 24oC, 25oC, 26oC, 27oC, 28oC, 29oC, 30oC, 31oC, 32oC, 33oC, 34oC, 35oC, 36oC, 37oC, 38oC, 39oC, 40oC, 41oC, 42oC, 43oC, 44oC, 45oC, 46oC, 47oC, 48oC, 49oC, 50oC, 51oC, 52oC, 53oC, 54oC, 55oC, 56oC, 57oC, 58oC, 59oC, 60oC or higher.

3. (Once amended) A crystal gel according to claim 1, wherein said copolymer [crystalline components] having a selected crystallinity [of at least about 15% by weight of said copolymer] as exhibited in differential scanning [calorimeter] calorimetry (D[C]SC) a melting endotherm values of about 40oC, 41oC, 42oC, 43oC, 44oC, 45oC, 46oC, 47oC, 48oC, 49oC, 50oC, 51oC, 52oC, 53oC, 54oC, 55oC, 56oC, 57oC, 58oC, 59oC, 60oC, 61oC, 62oC, 63oC, 64oC, 65oC, 66oC, 67oC, 68oC, 69oC, 70oC, 71oC, 72oC, 73oC, 74oC, 75oC, 76oC, 77oC, 78oC, 79oC, 80oC or higher.

4. (Once amended) A crystal gel according to claim 1, wherein [said copolymer of] said crystal gel is formed from said (i) copolymer in combination with or without a selected amount of (iii) one or more polymer or copolymer of poly(styrene-butadiene-styrene), poly(styrene-butadiene), poly(styrene-isoprene-styrene), poly(styrene-isoprene), poly(styrene-ethylene-propylene), poly(styrene-ethylene-propylene-styrene), poly(styrene-ethylene-butylene-styrene), poly(styrene-ethylene-butylene), poly(styrene-ethylene-propylene)n, poly(styrene-ethylene-butylene)n, maleated poly(styrene-ethylene-propylene-styrene), maleated poly(styrene-ethylene-butylene-styrene), maleated poly(styrene-ethylene-butylene), maleated poly(styrene-ethylene-propylene)n, maleated poly(styrene-ethylene-butylene)n, polystyrene, polybutylene, poly(ethylene-propylene), poly(ethylene-butylene), polypropylene, polyethylene, polyethylene copolymers, polyethyleneoxide, poly(dimethylphenylene oxide), copolymers of trifluoromethyl-4,5-difluoro-1,3-dioxole and tetrafluoroethylene, tetrafluoroethylene, polycarbonate, ethylene vinyl alcohol copolymer, polyamide, polyethyleneoxide, poly(dimethylphenylene oxide), polystyrene, polybutylene, polyethylene, polypropylene, high ethylene content EPDM, amorphous copolymers based on 2,2-bis(trifluoromethyl-

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4,5-difluoro-1,3-dioxole/tetrafluoroethylene or polydimethylsiloxane; wherein said (i) copolymer and said (iii) copolymer is a linear, branched, radial, or a multiarm copolymer.

10. (Once amended) An low tack gelatinous composition comprising: a crystal gel formed from
- (i) 100 parts by weight of one or more copolymers having a selected amount of one or more elastomeric segments and a selected amount of one or more glassy segments, said elastomeric segments having a selected amount of one or more crystalline poly(ethylene) components and said glassy segments being a poly(styrene), poly(alpha-methylstyrene), poly(o-methylstyrene), poly(m-methylstyrene), or poly(p-methylstyrene);
- (ii) from about 250 to about 1,600 parts of a plasticizer sufficient to achieve a gel rigidity of from less than about 2 gram Bloom to about 1,800 gram Bloom;
- (iii) said low tack being achieved by a combination of said selected amount of crystalline poly(ethylene) components of said selected amount of said [poly(styrene)] glassy segments forming said crystal gel, wherein said elastomeric segments and said [poly(styrene)] glassy segments being a ratio of [at least] about 37:63 and said tack of said crystal gel being less than amorphous gels of poly(styrene-ethylene-butylene-styrene) or poly(styrene-ethylene-propylene-styrene) of substantially same rigidities.
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Please add the following new claims:

(new claim) 11. (Once amended) An improved gelatinous composition comprising: a crystal gel formed from (i) 100 parts by weight of one or more of a substantially random poly(ethylene-styrene) copolymers produced by metallocene catalysts or in combination as a mixture with or without one or more of (a) a linear triblock copolymers, (b) multi-arm block copolymers, (c) branched block copolymers, or (d) radial block copolymers, said substantially random poly(ethylene-styrene), linear triblock, multi-arm block, branched block, and radial block copolymers having one or more crystalline poly(ethylene) components (ii) from about 250 to about 1,600 parts of a plasticizer sufficient to achieve a gel rigidity of from less than about 2 gram Bloom to about 1,800 gram Bloom; wherein said crystalline poly(ethylene) components of said substantially random copolymer and said (a), (b), (c), (d) copolymers having a selected amount of crystallinity sufficient to achieve improvements in one or more crystal gel properties including improved tear resistance and improved resistance to fatigue; wherein said improvements in properties of said crystal gel being greater than an amorphous gel made from poly(styrene-ethylene-butylene-styrene) or poly(styrene-ethylene-propylene-styrene) having substantially non-crystalline components at corresponding said gel rigidity; in combination with or without a selected amount of (iii) one or more of a selected polymer or copolymer.

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(New claim) 12. A composite comprising a crystal gel of claim 11, where said gel is denoted by G being physically interlocked with a selected material M forming the combination $G_n M_n$, $G_n M_n G_n$, $M_n G_n M_n$, $M_n G_n G_n M_n$, $G_n M_n M_n G_n$, $G_n M_n G_n M_n G_n$, $M_n M_n M_n G_n$, $M_n M_n M_n G_n M_n M_n M_n$, $G_n G_n$, $G_n G_n G_n$, $M_n G_n G_n$, $M_n M_n M_n G_n M_n$, $M_n G_n G_n M_n$, $G_n M_n G_n G_n$, $G_n M_n M_n G_n$, $G_n M_n M_n G_n$, $G_n G_n M_n M_n$, $G_n G_n M_n G_n M_n$, $G_n M_n G_n G_n$, $G_n M_n G_n M_n M_n$, $M_n G_n M_n G_n M_n G_n$, or a permutation of one or more of said G_n with M_n ; wherein when n is a subscript of M, n is the same or different selected from the group consisting of paper, foam, plastic, natural fibers, fabric, metal, metal foil, concrete, wood, glass, glass fibers, ceramics, synthetic resin, synthetic fibers or refractory materials; and wherein when n is a subscript of G, n denotes the same or a different gel rigidity.

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(new claim) 13. A crystal gel according to claim 11, wherein said copolymer having a selected amount of about 20%, 22%, 25%, 30%, 40%, 50%, 60%, 65%, or about 70% of $(-CH_2-)^{16}$ units of the total mole % forming the midblocks of the substantially random copolymer so as to exhibit in differential scanning calorimetry (DSC) a crystallinity melting endotherm values of about 20oC, 21oC, 22oC, 23oC, 24oC, 25oC, 26oC, 27oC, 28oC, 29oC, 30oC, 31oC, 32oC, 33oC, 34oC, 35oC, 36oC, 37oC, 38oC, 39oC, 40oC, 41oC, 42oC, 43oC, 44oC, 45oC, 46oC, 47oC, 48oC, 49oC, 50oC, 51oC, 52oC, 53oC, 54oC, 55oC, 56oC, 57oC, 58oC, 59oC, 60oC or higher.

(New claim) 14. A crystal gel according to claim 11, wherein said copolymer having a selected amount of about 20%, 22%, 25%, 30%, 40%, 50%, 60%, 65%, or about 70% of $(-CH_2-)^{16}$ units of the total mole % forming the midblocks of the substantially random copolymer so as to exhibit in differential scanning calorimetry (DSC) a crystallinity melting endotherm values of about 40oC, 41oC, 42oC, 43oC, 44oC, 45oC, 46oC, 47oC, 48oC, 49oC, 50oC, 51oC, 52oC, 53oC, 54oC, 55oC, 56oC, 57oC, 58oC, 59oC, 60oC, 61oC, 62oC, 63oC, 64oC, 65oC, 66oC, 67oC, 68oC, 69oC, 70oC, 71oC, 72oC, 73oC, 74oC, 75oC, 76oC, 77oC, 78oC, 79oC, 80oC or higher.

REMARKS

The application and the material cited to date have been carefully reviewed along with Examiner's remarks in the Office action. After this review, Applicant is convinced that his claimed composition and articles are novel and patentable. Applicant strongly believes that his application embodies a significant discovery, that the claims define the invention in a clear and definite manner, and that all of the amende claims are allowable.